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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/582,596      | 06/09/2006  | Andreas Bode         | 2003P17643WOUS      | 2795             |

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SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
170 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

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| EXAMINER |
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BHAT, ADITYA S

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| ART UNIT | PAPER NUMBER |
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2863

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01/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/582,596 | <b>Applicant(s)</b><br>BODE, ANDREAS |  |
|                              | <b>Examiner</b><br>Aditya S. Bhat    | <b>Art Unit</b><br>2863              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/9/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status***

1. Claims 8-21 are currently pending in this application. Claims 1-7 have been canceled in an preliminary amendment.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 6/09/2006 was received. The submission is in compliance with the provisions of 37 CFR 1.97 and 37 CFR 1.98. Accordingly, the information disclosure statement has being considered by the examiner.

### ***Drawings***

4. The drawings submitted on 6/09/2006 are in compliance with 37 CFR § 1.81 and 37 CFR § 1.83 and have been accepted by the examiner.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8-21 are rejected under 35 U.S.C. 102(b) as being anticipated by La Pierre (USPN 5,951,611).

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With regards to claim 8, La Pierre (USPN 5,951,611) teaches a method for monitoring a technical device, comprising:

detecting a plurality of operational signals of the technical device; (Col. 1, lines 48-50)

determining a mean operational signal value using at least some of the operational signals;(Col. 4, Lines 30-35)

determining a normalized operational signal for at least one operational signal where the normalized operational signal contains a deviation of a current value of the operational signal from the mean operational signal value; (Col. 4, lines 5-9) and

comparing the normalized operational signal with a reference value range of the relevant operational signal. (Col. 4, lines 53-58)

With regards to claim 9, La Pierre (USPN 5,951,611) teaches the reference value range is the range between a lowest and a highest value of the normalized operational signal. (Col. 4, lines 54-56)

With regards to claims 10 &11, La Pierre (USPN 5,951,611) teaches the lowest or/and highest value of the normalized operational signal are determined from actual measured values of the relevant operational signal. (Col. 4, lines 45-47)

With regards to claim 12 and 13, La Pierre (USPN 5,951,611) teaches the lowest or/and highest value of the normalized operational signal are determined using a statistical distribution function. (Col. 4, lines 48-52)

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It should be noted that no special definition has been given to the term statistical distribution function in applicant's specification.

With regards to claim 14, La Pierre (USPN 5,951,611) teaches the reference value range is determined and the normalized operational signal is compared with the current reference value range while the technical device is operating. (Col. 4, Lines 53-58) The trend parameters that are being measured and compared must be taken when the engine is in operation. (Col. 3, lines 4-20)

With regards to claim 15, La Pierre (USPN 5,951,611) teaches the reference value range is determined multiple times while the technical device is operating and the normalized operational signal is compared with the current reference value range for each determination of the reference value range. (Col. 4, Lines 53-58)

With regards to claim 16, La Pierre (USPN 5,951,611) teaches the current value of the operational signal is compared with a predetermined monitoring threshold value.  
(Col. 4, lines 53-58)

With regards to claim 17, La Pierre (USPN 5,951,611) teaches a corresponding mean operational signal value is determined for each type of operational signals.

With regards to claim 18, La Pierre (USPN 5,951,611) teaches the technical device is a gas turbine engine. (Col. 2, line 66)

With regards to claim 19, La Pierre (USPN 5,951,611) teaches the operational signals are *selected from the group consisting of*: a temperature

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signal(Col. 2, line 62), a pressure signal, (Col. 2, line 63) a electrical current signal, and an electrical voltage signal.

With regards to claim 20, La Pierre (USPN 5,951,611) teaches the operational signals are combustion chamber burner flame temperature signals. (Col. 3, lines 18-20)

With regards to claim 21, La Pierre (USPN 5,951,611) teaches a method for monitoring a combustion chamber burner flame temperature of a gas turbine engine, comprising:

detecting an operational signal (Col. 1, lines 48-50) of the gas turbine engine that corresponds to the combustion chamber burner flame temperature of the gas turbine engine; (Col. 3, lines 18-20)

determining a mean operational signal value of the detected operational signal; (Col. 4, lines 30-35)

determining a normalized operational signal based on the detected operational signal where the normalized operational signal contains a deviation of a current value of the operational signal from the mean operational signal value; (Col. 4, lines 5-9)

comparing the normalized operational signal with a reference value range of the detected operational signal where the reference value range is determined multiple times while the gas turbine engine is operating and the normalized operational signal is compared with the current reference value range for each determination of the reference value range; (Col. 4, Lines 53-58) The trend

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parameters that are being measured and compared must be taken when the engine is in operation.(Col. 3, lines 4-20) and

comparing the current value of the detected operational signal with a predetermined monitoring threshold value. (Col. 4, Lines 53-56)

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Volponi et al. (USPN 6,909,960) teaches a method for performing gas turbine performance diagnostics, and Cece et al. (USPN 6,591,182) teaches a decision making process and manual for diagnostic trend analysis.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Aditya Bhat  
December 28, 2007